

WE CLAIM:

1. A secure multiple application card system including an IC card comprising a microprocessor, a read-only memory and an electrically erasable programmable read only memory, said system comprising:

means for manufacturing said IC card and for storing at the time of manufacture in said read-only memory an operating system and programming instructions without an address table with memory addresses of at least one of said programming instructions; and

means for personalizing said IC card after said manufacturing step and for storing at the time of personalization in said electrically erasable programmable read only memory said address table with memory addresses of at least one of said programming instructions,

wherein the operating system will only access those program instructions in accordance with the addresses indicated in the address table.

2. The system of claim 1, wherein said programming instructions comprise at least one primitive.

3. The system of claim 1, wherein said programming instructions comprise at least one codelet.

4. The system of claim 1, wherein said means for personalizing said IC card and for storing in said electrically erasable programmable read only memory further stores additional programming instructions.

5. The system of claim 4, wherein said additional programming instructions comprise at least one primitive.

6. The system of claim 4, wherein said additional programming instructions

comprise at least one codelet.

7. The system of claim 5, wherein said address table comprises a listing of the primitives' names to be accessed and memory addresses containing the primitives.

8. The system of claim 6, wherein said address table comprises a listing of the codelets' names to be accessed and memory addresses containing the codelets.

9. A process for providing a secure multiple application card system including an IC card comprising a microprocessor, a read-only memory and an electrically erasable programmable read only memory, said process comprising the steps of:

manufacturing said IC card and for storing at the time of manufacture in said read-only memory an operating system and programming instructions without an address table with memory addresses of at least one of said programming instructions; and

personalizing said IC card after said time of manufacture by storing in said electrically erasable programmable read only memory said address table with memory addresses of at least one said programming instructions,

wherein the operating system will only access those program instructions in accordance with the addresses indicated in the address table.

10. The process of claim 9, wherein said programming instructions comprise at least one primitive.

11. The process of claim 9, wherein said programming instructions comprise at least one codelet.

12. The process of claim 9, wherein said step for storing in said electrically erasable programmable read only memory further includes storing additional programming instructions.

13. The process of claim 12, wherein said additional programming instructions comprises at least one primitive.

14. The process of claim 12, wherein said additional programming instructions comprises at least one codelet.

15. The process of claim 13, wherein said address table comprises a listing of the primitives' names to be called and memory addresses containing the primitives.

16. The process of claim 14, wherein said address table comprises a listing of the codelets' names to be called and memory addresses containing the codelets.

17. A process for providing a secure multiple application card comprising a microprocessor, a first memory and second memory, said process comprising the steps of:

manufacturing said card and storing at the time of manufacture in said first memory an operating system and programming instructions without an address table with memory addresses of at least one of said programming instructions; and

personalizing said IC card after said storing step by storing in said second memory said address table with memory addresses of at least one said programming instructions;

wherein said operating system will only access those program instructions in accordance with the address indicated in the address table.

18. The process of claim 17, wherein said programming instructions comprise at least one primitive.

19. The process of claim 17, wherein said programming instructions comprise at least one codelet.

20. The process of claim 17, wherein said step for storing in said electrically erasable programmable read only memory further includes storing additional programming instructions.

21. The process of claim 20, wherein said additional programming instructions comprises at least one primitive.

22. The process of claim 20, wherein said additional programming instructions comprises at least one codelet.

23. The process of claim 21, wherein said address table comprises a listing of the primitives' names to be called and memory addresses containing the primitives.

24. The process of claim 22, wherein said address table comprises a listing of the codelets' names to be called and memory addresses containing the codelets.

25. A secure multiple application card system including an IC card comprising a microprocessor, a read-only memory and an electrically erasable programmable read only memory, said system comprising:

means for manufacturing said IC card and for storing at the time of manufacture in said read-only memory an operating system and programming instructions; and

means for personalizing said IC card after the time of manufacture and for storing at the time of personalization in said electrically erasable programmable read only memory an address table with memory addresses of at least one of said programming instructions,

wherein the operating system will only access those program instructions in accordance with the addresses indicated in the address table;

and wherein said means for personalizing said IC card can be operated to store additional programming instructions in said read-only memory and includes means for inserting addresses for said additional programming instructions in said address table.

26. The system of claim 25, wherein said additional programming instructions correspond to updated versions of previously stored programming instructions and the means for inserting addresses in the address table overwrites existing addresses with addresses of the corresponding updated programming instructions.

27. The system of claim 26, wherein said programming instructions comprise at least one primitive.

28. The system of claim 26, wherein said programming instructions comprise at least one codelet.

29. The system of claim 27, wherein said additional programming instructions comprise at least one primitive.

30. The system of claim 28, wherein said additional programming instructions comprise at least one codelet.

31. The system of claim 27, wherein said address table comprises a listing of the names of the primitives to be accessed and memory addresses containing the primitives.

32. The system of claim 28, wherein said address table comprises a listing of the names of the codelets to be accessed and memory addresses containing the codelets.

33. A process for providing a secure multiple application card system including an IC card comprising a microprocessor, a read-only memory and an electrically erasable programmable read only memory, said process comprising the steps of:

manufacturing said IC card and for storing at the time of manufacture in said read-only memory an operating system and programming instructions; and

personalizing said IC card after said time of manufacture by storing in said electrically erasable programmable read-only memory an address table with memory addresses of at least one said programming instructions,

wherein the operating system will only access those program instructions in accordance with the addresses indicated in the address table;

storing additional programming instructions in said read-only memory, and inserting addresses for said additional programming instructions in said address table.

34. The process of claim 33, wherein said additional programming instructions correspond to updated versions of existing programming instructions and the step of inserting addresses in said address table comprises overwriting existing addresses with the addresses of the corresponding updated programming instructions.

35. The process of claim 34, wherein said programming instructions comprise at least one primitive.

36. The process of claim 34, wherein said programming instructions comprise at least one codelet.

37. The process of claim 35, wherein said address table comprises a listing of the names of the primitives to be called and memory addresses containing the primitives.

38. The process of claim 36, wherein said address table comprises a listing of the names of the codelets to be called and memory addresses containing the codelets.

39. A process for providing a secure multiple application card comprising a microprocessor, a first memory and second memory, said process comprising the steps of:

a. storing in said first memory an operating system and programming instructions; and

b. personalizing said IC card after said storing step by storing in said second memory an address table with memory addresses of at least one said programming instructions;

wherein said operating system will only access those program instructions in accordance with the address indicated in the address table;

storing additional programming instructions in said read-only memory, said inserting addresses for said additional programming instructions in said address table.

40. The process of claim 39, wherein said additional programming instructions correspond to updated versions of existing programming instructions and the step of inserting addresses in said address table comprises overwriting existing addresses with the addresses of the corresponding updated programming instructions.

41. The process of claim 40, wherein said programming instructions comprises at least one primitive.

42. The process of claim 40, wherein said programming instructions comprises at least one codelet.

43. In a multiple application card system including an IC card having an operating system, the improvement comprising:

means for manufacturing said IC card and for storing at the time of manufacture in said IC card a first set of programming instructions having a first address, without an address table with a second memory address of a second set of programming instructions;

means for storing in said IC card the second set of programming instructions; and

means for storing in said IC card, at a time of personalization, said address table with the second memory address, wherein after the time of personalization, the first set of programming instructions is rendered inaccessible to the operating system.

44. In a process for providing a multiple application card system including an IC card having an operating system, the improvement comprising:

manufacturing said IC card and storing at the time of manufacture in said IC card a first set of programming instructions having a first address, without an address table with a second memory address of a second set of programming instructions;

storing in said IC card the second set of programming instructions; and

storing in said IC card, at a time of personalization, said address table with the second memory address, wherein after the time of personalization, the first set of programming instructions is rendered inaccessible to the operating system.